

ABSTRACT OF THE DISCLOSURE

Method and apparatus are provided for visibly outlining the energy zone to be measured by a radiometer. The method comprises the steps of providing a laser sighting device on the radiometer adapted to emit more than two laser beams against a surface whose temperature is to be measured and positioning said laser beams about the energy zone to outline said energy zone. The apparatus comprises a laser sighting device adapted to emit more than two laser beams against the surface and means to position said laser beams about the energy zone to outline said energy zone. The laser beams may be rotated about the periphery of the energy zone. The laser beams may be rotated about the periphery of the energy zone. In another embodiment, a pair of laser beams are projected on opposite sides of the energy zone. The laser beams may be further pulsed on and off in a synchronized manner so as to cause a series of intermittent lines to outline the energy zone. Such an embodiment improves the efficiency of the laser and results in brighter laser beams being projected. In yet another embodiment, a primary laser beam is passed through or over a beam splitter or a diffraction grating so as to be formed into a plurality of secondary beams which form, where they strike the target, a pattern which defines an energy zone area of the target to be investigated with the radiometer. Two or more embodiments may be used together. A diffraction device such as a grating may be used to form multiple beams. In a further embodiment, additionally laser beams are directed axially so as to illuminate the center or a central are of the energy zone.